

**Sir,
Functional and anatomical outcomes of punctoplasty
with Kelly punch**

Acquired punctal stenosis represents a common cause of epiphora due to partial or complete lacrimal outflow obstruction. A variety of surgical procedures have been described involving punctal dilatation or surgical enlargement, sometimes augmented with lacrimal stenting or perforated punctal plugs.

We read with interest the article by Wong *et al*¹ regarding the long-term outcomes of punch punctoplasty with Kelly Descemet's membrane punch. In this report the successful anatomical and functional rates were 94% and 92%, respectively.

The authors would like to add the results of our 86 consecutive case series of Kelly punch punctoplasty performed on 65 patients (21 bilateral cases) with symptomatic punctal stenosis. The average follow-up was 6 months. At the last follow-up, 95% (82/86) achieved anatomical success, compared to 90% (78/86) functional success rate. Three puncta (3.4%) were noted to be re-stenosed at last visit. No significant complications were recorded.

In terms of surgical technique, Wong *et al*¹ describe an extended ampulectomy up to 2–3 mm beyond the vertical component of the canaliculus, by partially de-roofing and marsupializing the lower canaliculus, aiming to counteract the postoperative scarring and contracture of the punctal opening. However, in our experience a posterior ampulectomy involving only the vertical component of the canaliculus, with two to three bites, was sufficient for achieving adequate punctal opening enlargement in majority of the cases. In cases of short or stenosed vertical component, this can be slightly extended by (~1mm). Postoperatively, patients were prescribed a topical antibiotic solely (typically g. chloramphenicol 0.5%).

Our series provides further support for punctoplasty using Kelly Descemet's membrane punch as a simple, effective, and minimally invasive procedure for patients with symptomatic punctal stenosis. Satisfactory outcomes can be achieved with minimal tissue removal, potentially with less alteration of the lacrimal pump system.

Conflict of interest

The authors declare no conflict of interest.

Reference

- 1 Wong ES, Li EY, Yuen HK. Long-term outcomes of punch punctoplasty with Kelly punch and review of literature. *Eye (Lond)* 2017; **31**(4): 560–565.

K Vahdani¹, I Sian², O Giasin³ and G Makrygiannis¹

¹Bristol Eye Hospital, Bristol, UK

²The Royal Devon and Exeter Hospital, Exeter, UK

³Department of Ophthalmology, Ynysmaerdy, Pontyclun, UK
E-mail: kaveh.vahdani@nhs.net

Eye (2017) **31**, 1628; doi:10.1038/eye.2017.105;
published online 2 June 2017

**Sir,
Response to 'Functional and anatomical outcomes of
punctoplasty with Kelly punch'**

We appreciate the interest shown by Vahdani *et al*¹ in a surgical technique we recently described² and their comments. We are glad to hear that this technique has been practised by fellow colleagues with similar good results achieved. We would also like to take this opportunity to address certain differences in techniques between practices.

Both series achieved high anatomical and functional success with punch punctoplasty using Kelly Descemet's membrane punch—95% anatomical success and 90% functional success compared to 94% anatomical success and 92% functional success in our series. In terms of surgical technique, compared to our methods, Vahdani *et al* described a more limited posterior ampulectomy involving only the vertical component of the canaliculus, with two to three bites. Review of literature revealed no existing reference suggesting the exact amount of tissue to be removed in punch punctoplasty. In our practice, we chose to extend the ampulectomy to 2–3 mm beyond the vertical component of the canaliculus as we believe that scarring and contraction during the healing process will eventually cause the punctal opening to become smaller. With our current technique, the extent of tissue trauma is still much less compared to the conventional 3-snip procedure, taking a balance between adequate tissue removal to prevent re-approximation of the raw cut ends of the ampulla causing failure, while limiting the destruction of the capillary action of the canaliculus to the punched out segment only. In our series, we did not encounter any major complications, but we may consider to further reduce the amount of tissue removal similar to that described by Vahdani *et al*.

Postoperatively, patients were prescribed topical antibiotics solely in Vahdani *et al* series. In our clinic, steroid and antibiotic combination eye drops are widely used, and we did not encounter steroid-related complications, given the short duration of usage. We believe the addition of steroid drops during early post-operative phase can reduce inflammation, and may theoretically slow down the scarring process and re-stenosis of the punctum.

With the presence of further evidence to support the use of punctoplasty using Kelly Descemet's membrane punch as an effective and minimally invasive treatment for symptomatic punctal stenosis, we hope its use can become more widespread in the future.

Conflict of interest

The authors declare no conflict of interest.